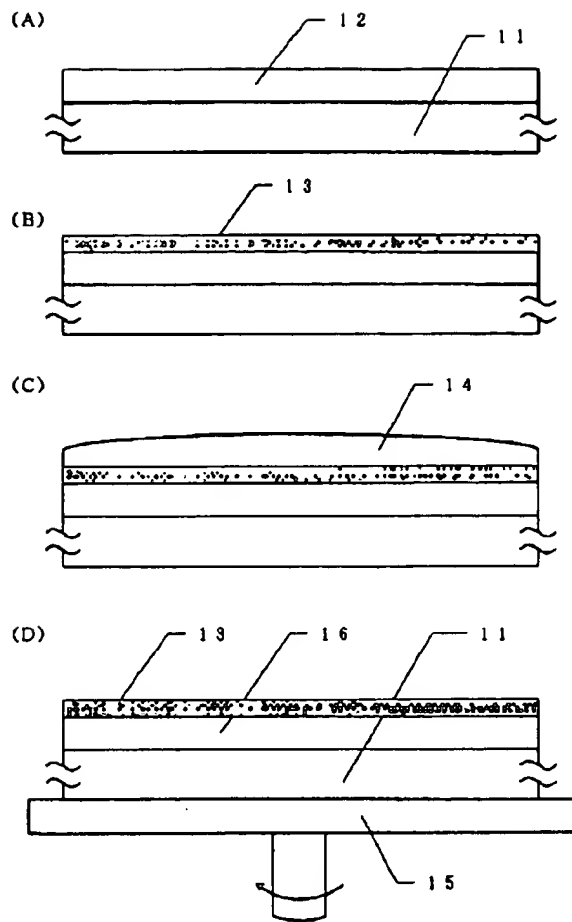
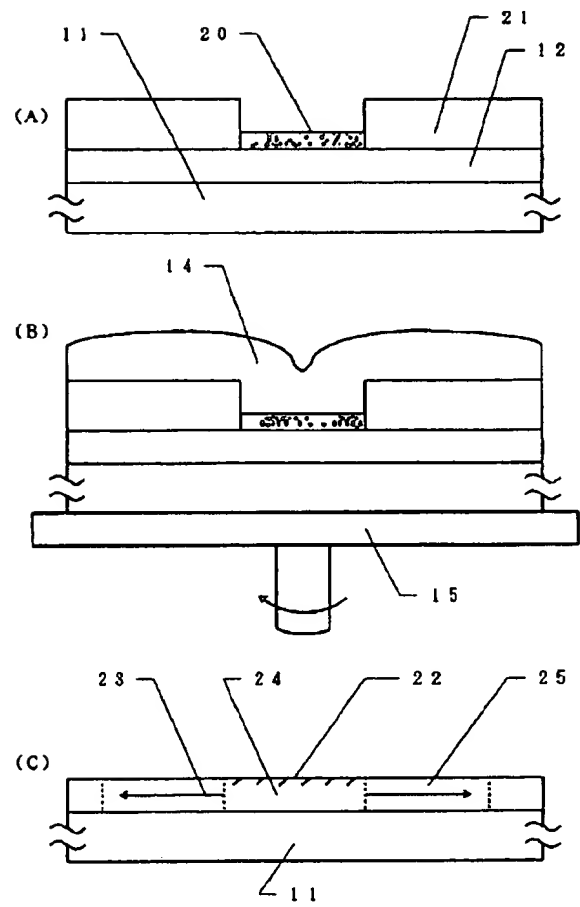


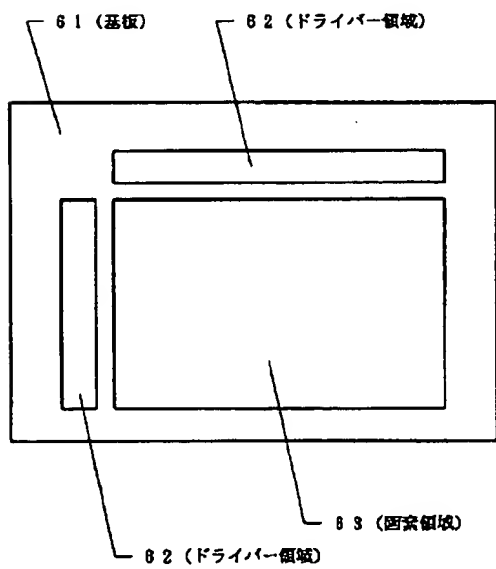
【図1】



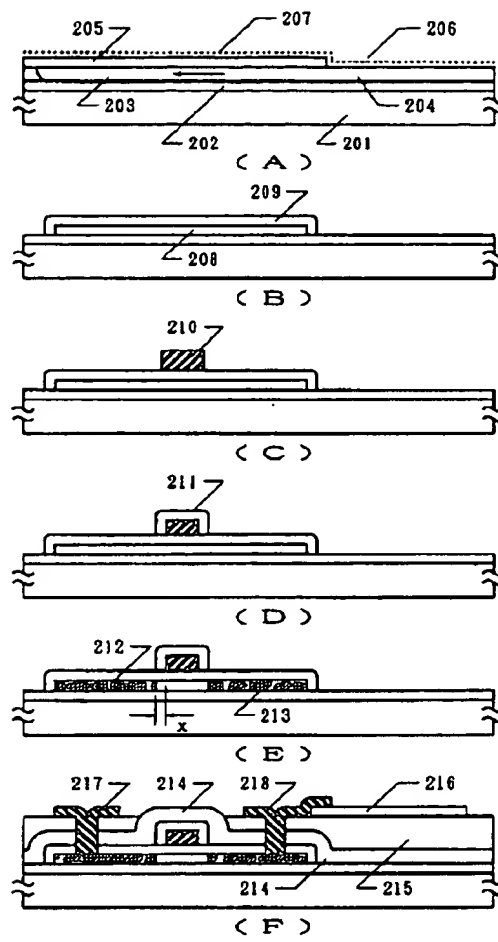
【図2】



【図4】



【図3】



DIALOG(R)File 347:JAPIO

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MANUFACTURE OF SEMICONDUCTOR DEVICE

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ABSTRACT

PURPOSE: To control the quantity of a catalytic element introduced precisely, and to introduce the catalytic element selectively in a method, in which crystalline silicon is obtained through heat treatment by using the catalytic element promoting crystallization.

CONSTITUTION: A mask 21 consisting of silicon oxide, etc., is formed on an amorphous silicon film 12 formed on a glass substrate 11, an extremely thin oxide film 20 is shaped, and the aqueous solution 14 of an acetic acid salt solution, etc., to which a catalytic element such as nickel is added in 10-200ppm (adjustment is required), is dropped. The whole is held for a fixed time under the state, and spin-drying is conducted by using a spinner 15. Heat treatment for four hr at 550 deg.C is performed, thus acquiring a

crystalline silicon film. In the constitution, the concentration of the catalytic element in the completed crystalline silicon film can be controlled accurately by adjusting the concentration of the catalytic element in the solution. Crystal growth can be executed towards a region, into which nickel is not introduced, from a region, into which nickel is introduced.